General

Guideline Title

Guideline on oral health care for the pregnant adolescent.

Bibliographic Source(s)

American Academy of Pediatric Dentistry (AAPD). Guideline on oral health care for the pregnant adolescent. Chicago (IL): American Academy of Pediatric Dentistry (AAPD); 2012. 7 p. [77 references]

Guideline Status

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This guideline updates a previous version: American Academy of Pediatric Dentistry (AAPD). Guidelines on oral health care for the pregnant adolescent. Chicago (IL): American Academy of Pediatric Dentistry (AAPD); 2007. 9 p. [47 references]

Recommendations

Major Recommendations

The American Academy of Pediatric Dentistry (AAPD) recommends that all pregnant adolescents seek professional oral health care during the first trimester. After obtaining a thorough medical history, the dental professional should perform a comprehensive evaluation which includes a thorough dental history, dietary history, clinical examination, and caries risk assessment. The dental history includes, but is not limited to, discussion of preexisting oral conditions, signs/symptoms of such, current oral hygiene practices and preventive home care, previous radiographic exposures, and tobacco use. The adolescent's dietary history should focus on exposures to carbohydrates, especially due to increased snacking, and acidic beverages/foods. During the clinical examination, the practitioner should pay particular attention to health status of the periodontal tissues. The AAPD's caries-risk assessment guideline, utilizing historical and clinical findings, will aid the practitioner in identifying risk factors in order to develop an individualized preventive program.

Based upon the historical indicators, clinical findings, and previous radiographic surveys, radiographs may be indicated. Because risk of carcinogenesis or fetal effects is very small but significant, radiographs should be obtained only when there is expectation that diagnostic yield (including the absence of pathology) will influence patient care. If dental treatment must be deferred until after delivery, radiographic assessment also should be deferred. All radiographic procedures should be conducted in accordance with radiation safety practices. These include optimizing the radiographic techniques, shielding the pelvic region and thyroid gland, and using the fastest imaging system consistent with the imaging task. Image receptors of speeds slower than American National Standards Institute (ANSI) speed group E shall not be used.

Counseling for all pregnant patients should address:

1. Relationship of maternal oral health with fetal health (e.g., possible association of periodontal disease with preterm birth and pre-eclampsia)

2. An individualized preventive plan including oral hygiene instructions, rinses, and/or xylitol gum to decrease the likelihood of Mutans streptococci (MS) transmission postpartum
3. Dietary considerations (e.g., maintaining a healthy diet, avoiding frequent exposures to cariogenic foods and beverages, overall nutrient and energy needs)
4. Anticipatory guidance for the infant's oral health including the benefits of early establishment of a dental home
5. Anticipatory guidance for the adolescent's oral health to include injury prevention, oral piercings, tobacco and substance abuse, sealants, and third molar assessment
6. Oral changes that may occur secondary to pregnancy (e.g., xerostomia, shifts in oral flora)
7. Individualized treatment recommendations based upon the specific oral findings for each patient

Preventive services must be a high priority for the adolescent pregnant patient. Ideally, a dental prophylaxis should be performed during the first trimester and again during the third trimester if oral home care is inadequate or periodontal conditions warrant professional care. Referral to a periodontist should be considered in the presence of progressive periodontal disease. While fluoridated dentifrice and professionally-applied topical fluoride treatments can be effective caries preventive measures for the expectant adolescent, the AAPD does not support the use of prenatal fluoride supplements to benefit the fetus.

A pregnant adolescent experiencing morning sickness or gastroesophageal reflux should be instructed to rinse with a cup of water containing a teaspoon of sodium bicarbonate and to avoid tooth brushing for about 1 hour after vomiting to minimize dental erosion caused by stomach acid exposure. Women should be advised about the high sugar content and risk for caries associated with long term frequent use of over the counter antacids. Where there is established erosion, fluoride may be used to minimize hard tissue loss and control sensitivity. A daily neutral sodium fluoride mouth rinse or gel to combat enamel softening by acids and control pulpal sensitivity may be prescribed. A palliative approach to alleviate dry mouth may include increased water consumption or chewing sugarless gum to increase salivation.

Common invasive dental procedures may require certain precautions during pregnancy, particularly during the first trimester. Elective restorative and periodontal therapies should be performed during the second trimester. Dental treatment for a pregnant patient who is experiencing pain or infection should not be delayed until after delivery. When selecting therapeutic agents for local anesthesia, infection, postoperative pain, or sedation, the dentist must evaluate the potential benefits of the dental therapy versus the risk to the pregnant patient and the fetus. The practitioner should select the safest medication, limit the duration of the drug regimen, and minimize dosage. Health care providers should avoid the use of aspirin, aspirin-containing products, erythromycin estolate, and tetracycline in the pregnant patient. Non-steroidal anti-inflammatory drugs routinely are not recommended during pregnancy; if necessary, administration should be avoided during the first and third trimesters and be limited to 48-72 hours.

Patients requiring restorative care should be counseled regarding the risk and benefits and alternatives to amalgam fillings. The dental practitioner should use rubber dam and high speed suction during the placement or removal of amalgam to reduce the risk of vapor inhalation. Consultation with the prenatal medical provider should precede use of nitrous oxide/oxygen analgesia/anxiolysis during pregnancy. Nitrous oxide inhalation should be limited to cases where topical and local anesthetics alone are inadequate. Precautions must be taken to prevent hypoxia, hypotension, and aspiration.

The pediatric dentist should incorporate positive youth development (PYD) into care for the adolescent patient. This approach goes beyond traditional prevention, intervention, and treatment of risky behaviors and problems and suggests that a strong interpersonal relationship between the adolescent and the pediatric dentist can be influential in improving adolescent oral health and transitioning to adult care. Through PYD, the dentist can promote healthy lifestyles, teach positive patterns of social interaction, and provide a safety net in times of need. At a time agreed upon by the patient, parent, and pediatric dentist, the patient should be transitioned to a practitioner knowledgeable and comfortable with managing that patient's specific oral care needs.

Dental practitioners must be familiar with state statutes that govern consent for care for a pregnant patient less than the age of majority. If a pregnant adolescent's parents are unaware of the pregnancy, and state laws require parental consent for dental treatment, the practitioner should encourage the adolescent to inform them so appropriate informed consent for dental treatment can occur.

Clinical Algorithm(s)

None provided

Scope

Disease/Condition(s)

Oral health conditions and diseases, such as:

- Oral injury
- Xerostomia
- Dental caries
- Dental erosion
- Perimylolysis
- Gingivitis
- Periodontitis
- Infection (*Bacteroides*, *Prevotella*, *Porphyromonas*, *Mutans streptococci*)
- Pain

Guideline Category

Counseling

Evaluation

Management

Prevention

Risk Assessment

Clinical Specialty

Dentistry

Family Practice

Obstetrics and Gynecology

Pediatrics

Preventive Medicine

Intended Users

Advanced Practice Nurses

Allied Health Personnel

Dentists

Health Care Providers

Physician Assistants

Physicians

Public Health Departments

Guideline Objective(s)

To address management of oral health care particular to the pregnant adolescent

Note: The guideline is not intended to provide specific treatment recommendations for oral conditions.

Target Population

Pregnant adolescents

Interventions and Practices Considered

Evaluation/Risk Assessment

1. Comprehensive evaluation including:
    - Medical, dental, and dietary history
    - Clinical examination
    - Caries risk assessment using the American Academy of Pediatric Dentistry's (AAPD's) caries-risk assessment tool
2. Radiographs, as indicated

Management/Prevention

1. Counseling/anticipatory guidance
2. Preventative services
3. Referral to periodontist, if necessary
4. Mouth rinsing for morning sickness
5. Timing of elective restorative and periodontal therapies
6. Restorative care when necessary
7. Positive youth development (PYD)
8. Proper consent according to state law

Major Outcomes Considered

- Changes in levels and types of oral bacteria
- Incidence of preterm or low birth weight births associated with periodontitis
- Incidence of preeclampsia associated with periodontitis
- Levels of maternal discomfort based on trimester at treatment
- Incidence of improved oral hygiene during pregnancy

Methodology

Methods Used to Collect/Select the Evidence

Searches of Electronic Databases

Description of Methods Used to Collect/Select the Evidence

The Council on Clinical Affairs (CCA), in collaboration with the Council on Scientific Affairs, performs a comprehensive literature review for each document. For this guideline, the revision included an electronic search of the PubMed® database over the last 10 years using the following parameters: Terms: "pregnancy", "adolescent pregnancy", "maternal", "pre-term birth", "oral health", "low birth weight delivery", and "periodontal disease"; Field: all fields; Limits: within the last 10 years, humans, English, clinical trials. The reviewers selected 79 articles that met the defined criteria to update this guideline. When data did not appear sufficient or were inconclusive, recommendations were based upon expert and/or consensus opinion by experienced researchers and clinicians.

Number of Source Documents

The reviewers selected 79 articles that met the defined criteria to update this guideline.

Methods Used to Assess the Quality and Strength of the Evidence

Expert Consensus (Committee)

Rating Scheme for the Strength of the Evidence

Not applicable

Methods Used to Analyze the Evidence

Review

Description of the Methods Used to Analyze the Evidence

Not stated

Methods Used to Formulate the Recommendations

Expert Consensus

Description of Methods Used to Formulate the Recommendations

Once a charge from the Board of Trustees for review/revision of a clinical guideline is sent to the Council on Clinical Affairs (CCA), it is assigned to 1 or more members of the CCA for completion. CCA members are instructed to follow the specified format for a guideline, utilizing 2 sources of evidence: the scientific literature and experts in the field.

Rating Scheme for the Strength of the Recommendations

Not applicable

Cost Analysis

A formal cost analysis was not performed and published cost analyses were not reviewed.

Method of Guideline Validation

Peer Review

Description of Method of Guideline Validation

The entire council met in November 2011 to discuss proposed revisions, amend as necessary, and confirm the final document.

Evidence Supporting the Recommendations

Type of Evidence Supporting the Recommendations

The type of evidence supporting the recommendations is not specifically stated for each recommendation.

When data did not appear sufficient or were inconclusive, recommendations were based upon expert and/or consensus opinion by experienced researchers and clinicians.

Benefits/Harms of Implementing the Guideline Recommendations

Potential Benefits

- Improved management of oral health care in pregnant adolescents
- Avoidance of fetal hypoxia, premature labor/abortion, and teratogenic effects
- Elective restorative and periodontal therapies during the second trimester may prevent any dental infections or other complications from occurring in the third trimester.
- Through positive youth development (PYD), the dentist can promote healthy lifestyles, teach positive patterns of social interaction, and provide a safety net in times of need.
- Education is an important component of prenatal oral health care and may have a significant effect on the oral health of both the mother and the child.
- Suppression of the mother's reservoirs of Mutans streptococci (MS) by dental rehabilitation and antimicrobial treatments may prevent or at least delay infant acquisition of these cariogenic microorganisms.

Potential Harms

- Exposure to radiation
- Aspiration, particularly during the last trimester
- Vapor inhalation from placement or removal of amalgam
- Hypoxia, hypotension, or aspiration from the use of nitrous oxide
- When selecting therapeutic agents for local anesthesia, infection, postoperative pain, or sedation, the dentist must evaluate the potential benefits of the dental therapy versus the risk to the pregnant patient and the fetus. The practitioner should select the safest medication, limit the duration of the drug regimen, and minimize dosage.

Contraindications

Contraindications

Due to the increased risk of pregnancy loss, use of nitrous oxide may be contraindicated in the first trimester of pregnancy.

Implementation of the Guideline

Description of Implementation Strategy

An implementation strategy was not provided.

Implementation Tools

Chart Documentation/Checklists/Forms

Resources

For information about availability, see the *Availability of Companion Documents* and *Patient Resources* fields below.

Institute of Medicine (IOM) National Healthcare Quality Report Categories

IOM Care Need

Staying Healthy

IOM Domain

Effectiveness

Patient-centeredness

Identifying Information and Availability

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Adaptation

Not applicable: The guideline was not adapted from another source.

Date Released

2007 May (revised 2012)

Guideline Developer(s)

American Academy of Pediatric Dentistry - Professional Association

Source(s) of Funding

American Academy of Pediatric Dentistry

Guideline Committee

Council on Clinical Affairs—Committee on the Adolescent

Composition of Group That Authored the Guideline

Not stated

Financial Disclosures/Conflicts of Interest

Council members and consultants derive no financial compensation from the American Academy of Pediatric Dentistry for their participation and are asked to disclose potential conflicts of interest.

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Guideline Availability

Electronic copies: Available from the American Academy of Pediatric Dentistry Web site.

Print copies: Available from the American Academy of Pediatric Dentistry, 211 East Chicago Avenue, Suite 700, Chicago, Illinois 60611.

Availability of Companion Documents

Information about the American Academy of Pediatric Dentistry (AAPD) mission and guideline development process is available on the AAPD Web site.

The following implementation tools are available for download from the AAPD Web site:

- Dental growth and development chart
- American Academy of Pediatric Dentistry Caries-Risk Assessment Tool (CAT)

Patient Resources

None available

NGC Status

This NGC summary was completed by ECRI Institute on April 3, 2008. The information was verified by the guideline developer on April 30, 2008. This NGC summary was updated by ECRI Institute on December 17, 2012. The updated information was verified by the guideline developer on January 28, 2013. This summary was updated by ECRI Institute on September 18, 2015 following the U.S. Food and Drug Administration advisory on non-aspirin nonsteroidal anti-inflammatory drugs (NSAIDs).

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